Serial No. 10/775,908 Attorney Docket No. 400.272US01 Title: NROM FLASH MEMORY WITH A HIGH-PERMITTIVITY GATE DIELECTRIC

## REMARKS

## Claim Rejections Under 35 U.S.C. § 102

Claims 1, 35 and 37-40 were rejected under 35 U.S.C. § 102(b) as being anticipated by Choi et al. (U.S. Patent Application No. 2003/0153151 A1). Applicant respectfully traverses this rejection.

Claims 1, 41, and 44 have been amended to clearly define the composition of the nitride storage layer. Limitations have been added to these claims to make it clear that the nitride layer is a non-porous, homogeneous layer of nitride.

Choi et al. disclose a memory device that uses quantum devices for memory storage. The memory device has a substrate 11, source and drain regions 13, 15 in the substrate 11, a tunnel layer 23, an insulator 21, and a control gate 17. A porous storage layer 25 is formed between the tunnel layer 23 and the insulator 21. The porous storage layer 25 is filled with materials 26 for storing electrons. Choi et al. neither teach nor suggest Applicant's invention as claimed in the amended claims.

Applicant's invention includes a nitride charge storage layer. This layer is a homogeneous layer of nitride and not porous as is disclosed in Choi et al. (see paragraph 0030 and Figure 1). Such a homogeneous storage layer not only has different structural characteristics and different manufacturing techniques as compared to the Choi et al. porous storage layer, but different charge storage characteristics as well.

## Claim Rejections Under 35 U.S.C. § 103

Claims 36 and 41-44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Choi et al. (U.S. Patent Application No. 2003/0153151 A1). Applicant respectfully traverses this rejection.

For the previously discussed reasons, the transistors of the present invention, as claimed in the amended claims, are neither taught nor suggested by Choi et al. Therefore, memory arrays and memory devices/systems that are comprised of such transistors would not have been obvious over Choi et al. Therefore, claims 36 and 41 -44 are also allowable over Choi et al.

PAGE 5

Serial No. 10/775,908 Attorney Docket No. 400.272US01 Title: NROM FLASH MEMORY WITH A HIGH-PERMITTIVITY GATE DIELECTRIC

## CONCLUSION

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. Please charge any further fees deemed necessary or credit any overpayment to Deposit Account No. 501373.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2211. No new matter has been added and no additional fee required by this amendment and response.

Respectfully submitted.

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